1106 East Capitol St NE Apt 2 Washington, DC 20002 kara.rudolph@gmail.com

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734.717.9830

EDUCATION: Ph.D. Johns Hopkins University January 2014

Bloomberg School of Public Health Department of Epidemiology Methods Concentration Advisor: Thomas Glass

Thesis: Mental health in context: effect heterogeneity and mechanism in the relationship

between neighborhood disadvantage and adolescent depression and anxiety.

M.H.S. Johns Hopkins University Bloomberg School of Public Health December 2013

Department of Biostatistics Advisor: Elizabeth Stuart

Thesis: Implementation of methods to estimate population marginal treatment effects in the presence of non-randomized treatment assignment and informative selection from a

population-based sample.

M.P.H. Johns Hopkins University

May 2008

Bloomberg School of Public Health

Areas of focus: epidemiology, program evaluation, maternal and child health Capstone: Evaluation design for a study using community health workers to improve breastfeeding rates among adolescent African American women in East Baltimore.

Graduate course in Biostatistics University of Pennsylvania

December 2006

May 2005

B.S. University of Michigan

College of Literature. Science and Arts

Highest Honors in Biochemistry

Thesis: Actin-regulatory proteins p116RIP and LIMK2 interact with POSH.

AWARDS: Robert Wood Johnson Foundation Health and Society Scholar: 2014-2016

Student Paper Award—American Statistical Association, Social Statistics/Government/

Survey Research Methods Sections: 2014

Sommer Scholar—Johns Hopkins School of Public Health: 2012-2014

Intramural Research Training Award Fellow—National Institute of Mental Health: 2010-

2012

Delta Omega Honor Society – Johns Hopkins School of Public Health: 2008

James B. Angell Scholar – University of Michigan: 2003-2005

University Honors - University of Michigan: 2001-2005

PAPERS: **Published**

Rudolph KE, Diaz I, Rosenblum M, Stuart EA. Estimating population treatment effects from a survey sub-sample. Am J Epidemiol. 2014. In press.

Rudolph KE, Wand GS, Stuart EA, Glass TA, Marques AH, Duncko R, Merikangas KR. The association between cortisol characteristics and neighborhood disadvantage in a population-based sample of U.S. adolescents. *Health Place*. 2014;25:68-77.

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Rudolph KE, Stuart EA, Glass TA, Merikangas KR. Neighborhood disadvantage in context: the influence of urbanicity on the association between neighborhood disadvantage and adolescent emotional disorders. *Soc Psychiatry Psychiatr Epidemiol*. 2014;49(3):467-75.

Rudolph KE, Lessler J, Moloney R, Kmush B, Cummings DAT. Incubation periods of mosquito-borne infections: a systematic review. *Am J Trop Med Hyg.* 2014;90(5):882-91.

Rudolph KE, Glass TA, Crum RM, Schwartz BS. Neighborhood psychosocial hazards and binge drinking among late middle-aged adults. *J Urban Health*. 2013; 90(5):970-82.

Lee RM, Lessler J, Lee RA, **Rudolph KE**, Reich NG, Perl TM, Cummings DAT. Incubation periods of viral gastroenteritis: a systematic review. *BMC Infect Dis*. 2013; 13(1):446.

Azman AS, **Rudolph KE**, Cummings DAT, Lessler J. The incubation period of cholera: a systematic review. *J Infect*. 2013; 66(5): 432-8.

Under Review

Hadley B, **Rudolph KE**, Mogul M, Perry DF. Providing home visiting to high-risk pregnant and postpartum families: the development and evaluation of the MOMobile program. *Zero to Three.*

In Preparation

Rudolph KE, Webster D, Stuart EA. Effects of Connecticut's permit-to-purchase law on homicides.

Rudolph KE, Stuart EA. Connections between unobserved confounding and covariate measurement error in propensity score methods.

Rudolph KE, Golden SH, Fujishiro K, Sanchez B, Wand GS, Stuart EA, Seeman T, Diez Roux A. Job strain and cortisol: the Multi-Ethnic Study of Atherosclerosis.

Webb-Vargas Y, Lenis D, Murakami P, **Rudolph KE**, Stuart EA. Applying multiple imputation for external calibration to propensity score analysis.

PRESENTATIONS & POSTERS:

Rudolph KE, Diaz I, Rosenblum M, Stuart EA. *Estimating population treatment effects from a survey sub-sample*. Oral presentation as part of topic-contributed session *Fresh Perspectives in Causal Inference II at* the Joint Statistical Meetings, Boston, MA, 2014.

Stuart EA, **Rudolph KE.** Bayesian approaches for handling differential covariate measurement error in propensity score methods. Oral presentation at the International Biometric Conference, Florence, Italy, 2014.

Paksarian D, **Rudolph KE**, He JP, Zhang C, Merikangas KR. School start time and sleep patterns among U.S. adolescents: Results from the National Comorbidity Survey –

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Adolescent Supplement. Poster at the Society for Epidemiological Research Conference, Seattle, WA, 2014.

Rudolph KE, Wand GS, Stuart EA, Glass TA, Marques AH, Duncko R, Merikangas KR. *The association between cortisol characteristics and neighborhood disadvantage in a population-based sample of U.S. adolescents.* Poster at the Society for Epidemiologic Research Conference, Boston, MA, 2013.

Rudolph KE, Stuart EA, Glass TA, Merikangas, KR. *Using propensity score* subclassification to examine the association between neighborhood disadvantage and adolescent mental health. Poster at the Society for Epidemiologic Research Conference, Minneapolis, MN, 2012.

Rudolph KE, Glass TA, Schwartz BS. *Neighborhood psychosocial hazards and binge drinking among older adults*. Poster at the Society for Epidemiologic Research Conference, Minneapolis, MN, 2012.

Azman AS, **Rudolph KE**, Cummings DAT, Lessler J. *The incubation period of cholera: a pooled parametric survival analysis of doubly interval censored data.* Poster at the Society for Epidemiologic Research Conference, Minneapolis, MN, 2012.

Rudolph K, Gabor V, Morgan R. *Environmental supports and barriers to physical activity in D.C. child care centers*. Oral presentation at the Annual American Public Health Association Conference, Denver, CO, 2010.

INVITED TALKS:

Neighborhood Disadvantage and Cortisol, Drexel School of Public Health, Department of Epidemiology and Biostatistics, Philadelphia, PA, March 2014.

PROFESSIONAL EXPERIENCE:

Postdoctoral Fellow
Department of Mental Health
Johns Hopkins School of Public Health, Baltimore, Maryland
Drug Dependence and Epidemiology Training Program

Statistical Consultant
Georgetown University, Washington, District of Columbia
Center for Child and Human Development
Partners for a Healthy Baby Evaluation

September 2011-December 2013

February 2014-present

April 2013-present

Teaching Assistant
Department of Epidemiology
Department of Biostatistics

Advised by Dr. Elizabeth Stuart

Johns Hopkins School of Public Health, Baltimore, Maryland

Courses: Spatial Analysis and GIS I & II, Fundamentals of Epidemiology and Biostatistics (3 years), Methodologic Challenges in Epidemiologic Research, Doctoral Seminars in Epidemiology.

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Research Assistant for Dr. Derek Cummings and Dr. Justin Lessler

Johns Hopkins School of Public Health, Baltimore, Maryland

December 2010-June 2013

Research Assistant for Dr. Elizabeth Stuart September 2012-January 2013

Johns Hopkins School of Public Health, Baltimore, Maryland

Pre-Doctoral Fellow

December 2010-August 2012

National Institutes of Mental Health, Bethesda, Maryland

Designed and conducted analysis using the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A) dataset.

Consultant

September 2010-December 2010

Altarum Institute, Washington, District of Columbia

- Designed program evaluations for the State of Michigan's Communities Putting Prevention to Work grant programs.
- Conducted quantitative data analysis for several CDC-funded projects, including ACHIEVE and the State of Michigan's School Nutrition Standards grant program.

Policy Associate

June 2008-August 2010

Altarum Institute, Washington, District of Columbia

- Project Management: Managed program evaluation projects contracted by the Health Resources and Services Administration (HRSA) of HHS.
- Evaluation Design: Designed program evaluations for the Maternal and Child Health Bureau's Early Childhood Comprehensive Systems Initiative, Texas' Medicaid case management program, HRSA's Bureau of Health Professions' minority health professions grant program, and Michigan's Building Healthy Communities grant program.
- Qualitative data analysis: Analyzed data obtained from focus groups, in-depth interviews, and data abstraction using NVivo qualitative analysis software.
- Quantitative data analysis: Led teams in analysis of primary and secondary data using STATA and SAS statistical software.
- Report writing: Co-authored several reports to HHS' Office of Women's Health, HRSA's Bureau of Health Professions and Bureau of Healthcare Systems, and the Maternal and Child Health Bureau.

Intern

August 2007-January 2008

Howard County Health Department, Columbia, Maryland

 Developed policies for health care access program to provide affordable, comprehensive health care coverage for all Howard County residents

Field Worker January 2008

Johns Hopkins Center for American Indian Health, Albuquerque, NM

 Field work as a Family Health Liaison for a teen mother health behavior intervention on Navajo and Apache reservations.

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Staff Scientist June 2005- June 2007

Merck & Co. Inc., West Point, Pennsylvania

- Supported demonstration and licensing of Varicella manufacturing facility
- Provided technical and biological support for Varicella processing
- Project and People Management
 - Led project to re-design sterility testing
 - Trained biotechnicians on Varicella manufacturing processes

Intern May-August 2003&2004

Merck & Co. Inc., West Point, Pennsylvania

PROFESSIONAL ACTIVITIES:

Reviewer

American Journal of Epidemiology 2014
BMC Public Health 2014
Environment International 2014
Journal of Epidemiology and Community Health 2013

OTHER

EXPERIENCE: Mentor March 2014-present

College Bound

Washington, District of Columbia

Student Group Leader September 2010-May 2012

Social Epidemiology Student OrganizationJohns Hopkins University, Baltimore, Maryland

Workshop Leader November 2008-May 2012

826, D.C., Washington, District of Columbia

Led creative writing projects for students in D.C. public schools.

Project Leader September 2008-July 2010

D.C. Cares, Washington, District of Columbia

Planning Team Member September 2007-February 2008

Johns Hopkins University, Baltimore, Maryland

UNICEF State of the World's Children Report Release Event

SKILLS: R, STATA, and SAS statistical programs.